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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,537	10/16/2003	John Danules	822103-1010	7726

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EXAMINER

KUHNS, ALLAN R

ART UNIT PAPER NUMBER

1732

DATE MAILED: 11/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/687,537

Applicant(s)

DANULES ET AL.

Examiner

Allan Kuhns

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 18-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. <u>110705</u> . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                                  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>020305&amp;101305</u> . | 6) <input type="checkbox"/> Other: _____.  |

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1.Applicants' election by telephone of Group I, claims 1-17 with traverse on November 2, 2005 is acknowledged. Claims 18-20 are withdrawn from consideration as being drawn to a non-elected invention.

2.Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. This claim depends from non-elected claim 19.

Clarification is required.

3.The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4.Claims 1, 2, 6-13 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoesman (4,734,232) in view of Kearns et al. (4,783,295) and Raynor et al. (3,882,052). Hoesman discloses or suggests the basic claimed method for flatproofing (column 1, line 16) a tire and wheel assembly including (1) injecting a mixture of reactant materials into the tire a wheel assembly, (2) allowing the mixture of reactant materials to react within the tire to create a foam-fill within the tire and (3) curing or allowing the foam-fill to "set" within the tire. Hoesman discloses the desirability of forming a microcellular foam within the tire (column 4, line 57) but appear not to teach the inclusion of a gas within the reactants and the use of a static mixer. But such is taught by Kearns et al., for example at column 3, lines 47-64. It would have been

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obvious to one of ordinary skill in the art to incorporate this aspect taught by Kearns et al. into the method of Hoesman in order to inhibit the formation of relatively large voids in the foam, as described by Kearns et al. at column 4, lines 26-36. Kearns et al. appear not to teach the introduction of the gas directly to a static mixer, but such is taught as an alternative technique by Raynor et al. at column 5, lines 41-49. It would have been obvious to one of ordinary skill in the art to incorporate this alternative technique taught by Raynor et al. into the method of Hoesman since such an alternative method has also been shown to be an effective alternative in mixing foam-forming reactants.

Hoesman teaches or suggests the use of an isocyanate and polyol, as in claim 2, in Example I, the mounting of the tire, as in claim 6, and the filling of the tire with air (they are to be fully expanded, as taught at column 4, line 10). Hoesman also teaches or suggests the predetermination of foamable mixture amounts, as in claims 8 and 11, at column 3, lines 45-50, and the use of vent holes, as in claims 9-10, at column 3, lines 12-23. Appropriate operating conditions, as in claims 12 and 13, would have been readily determined through routine experimentation by one of ordinary skill in the art and Official Notice is taken that it is known to introduce foam into tubed tires, as in claim 17.

5. Claims 3-5 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoesman in view of Kearns et al. and Raynor et al. as applied to claims 1, 2, 6-13 and 17 above, and further in view of Trickel et al. (4, 440,208). Trickel et al. describe at column 1, lines 36-43 that it is known to introduce foam fill ingredients into a tire through an aperture created by a valve stem opening. It would have been obvious to one of

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ordinary skill in the art to incorporate this teaching of Trickel et al. into the method of Hoesman in order to expediently introduce the foam-forming ingredients into the tire.

6. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoesman in view of Kearns et al. and Raynor et al. as applied to claims 1, 2, 6-13 and 17 above, and further in view of Doyle et al. (4,248,811). At column 5, lines 19-27, Doyle et al. teach the aspect of drilling a hole through the tire sidewall to form a valve stem opening. It would have been obvious to one of ordinary skill in the art to introduce this aspect taught by Doyle et al. into the method of Hoesman in order to more expediently introduce foamable ingredients into a tire.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allan Kuhns whose telephone number is (571) 272-1202. The examiner can normally be reached on Monday to Thursday from 7:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni, can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Allan R. Kuhns*

ALLAN R. KUHNS  
PRIMARY EXAMINER AU 1732

11-9-05